

News & Commentary

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Is Oil Shale the Answer?

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With fuel prices skyrocketing many people are thinking that extracting petroleum from a soft rock known as oil shale may provide an answer to America's energy woes by providing an additional source of crude.

Although no one is saying that oil shale could replace traditional exploration, I have serious doubts about its viability. I'm not ruling it out, mind you, but if history is to be our guide we likely have little to gain and much to lose by sinking money into the expensive process of extracting oil from stone.

It isn't alchemy. Shale contains high concentrations of kerogen, which is the precursor to hydrocarbons. Oil shale is plentiful in the Northwestern United States, some say plentiful enough to produce over two trillion barrels of crude oil. The Bureau of Land Management has as of this writing received nineteen nominations for leases on federal land to begin research and development for producing oil from shale. Ten of the nominations are in Colorado, eight in Utah, and one in Wyoming.

So... how do you get oil out of a rock?

Simply put, the process is called "pyrolysis." The shale is heated to around 500 degrees centigrade in an environment devoid of oxygen. This causes the kerogen to separate from the shale and convert into oil. Sounds simple, but the US has already had a dubious flirtation with oil shale, and it ended in disaster.

A limited amount of shale processing had been taking place in the US since the late 1800's. With the onset of WWII and the oil shortages it caused, the processing of oil shale increased dramatically. After the war, many so-called experts predicted that crude prices would continue to climb. Oil companies acted accordingly, building facilities to extract the oil from shale. This process got a boost when foreign oil hit an unprecedented \$40 per barrel in the 70's.

But then the sky fell in...

In 1982 Exxon closed its Colony oil shale plant near Grand Junction, Colorado, costing the area over 2000 jobs. Exxon closed the plant because the OPEC nations had ramped up production and significantly lowered their price for a barrel of oil. As the price per barrel dropped, shale processing became impractical. Grand Junction and the surrounding area were economically devastated by the closure and took years to recover. All across the nation, the oil shale industry was virtually abandoned.

Nowadays, oil industry executives claim that as long as the price of oil remains high, shale is a viable option. Suppose that Exxon or Shell or some other company actually finds a method of extraction that is cost-effective with current oil prices. Then suppose that new refineries are built specifically for the extraction of oil from shale. What do you think OPEC's reaction would be? Do you believe that OPEC will continue to inflate the price of oil? Have we forgotten the lessons from the 70's and 80's? OPEC controls the American oil industry.

OPEC would send the price of a barrel of oil under \$20 if necessary to kill any advances made with oil shale. Once the shale industry is dead (again), OPEC's prices will begin to rise (again). Americans will complain, congress will pay lip service to the problem, and within a few years we'll be back where we are right now.

While seeking alternative fuels is an important part of an intelligent energy strategy, we absolutely must increase both our conventional domestic oil production and our refining capacity. This is the only way that domestic oil can compete with oil from the Middle East. Increased supply here at home will have a positive (for us) effect on the supply/demand ratio and drive prices downward because OPEC would lower its prices to be competitive.

And, if a process can be created by which the extraction of oil from shale is cheap enough to withstand OPEC's inevitable countermeasures, then I'd say let's go for it, as long as it's only a small part of a much larger plan. With the technological advances we're making in so many areas it's easy to believe that we could find a way. But until that way is found, I'd say let's stick to drilling oil wells.

The oil companies will still be profitable, our price at the pump will be lower, and the Saudis, as far as I'm concerned, can take a deep dive down a shallow well.

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